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50154/004002 Attorney Docket No. SUBSTITUTE FORM PTO-1449 (MODIFIED) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE Serial No. 10/047,404 Hubbell et al. **Applicant** INFORMATION DISCLOSURE October 19, 2001 STATEMENT BY APPLICANT Filing Date (Use several sheets if necessary) Group 1632 (37 C.F.R. § 1.98(b)) IDS Filed December 8, 2003

			U.S. PATENTS			
Examiner's Initials	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date (If Appropriate)
~~	5,268,305	12/07/93	Ribi et al.			
~~	5,294,690	3/15/94	Iguchi et al.			
m	5,330,911	7/19/94	Hubbell et al.	_		
m	5,410,016	4/25/95	Hubbell et al.	_		
m	5,427,915	6/27/95	Ribi et al.	_		
~	5,446,090	8/29/95	Harris		-	
~	5,529,914	6/25/96	Hubbell et al.	_		
m	5,567,422	10/22/96	Greenwald			
~	5,573,934	11/12/96	Hubbell et al.	_		
~	5,575,815	11/19/96	Slepian et al.			
<i>~</i>	5,612,390	3/18/97	Iguchi, et al.			
·~	5,635,207	6/3/97	Grinstaff et al.			
m	5,648,506	7/15/97	Desai et al.			
m	5,752,974	5/19/98	Rhee et al.			
m	5,801,033	9/1/98	Hubbell et al.			
m	5,817,840	10/6/98	Nicolaou et al.			
M	5,852,182	12/22/98	Cook et al.			
^-	5,858,746	1/12/99	Hubbell et al.	1=		
~	5,874,500	2/23/99	Rhee et al.			
<u>~</u>	5,880,131	3/9/99	Greenwald et al.			
<u></u>	5,897,955	4/27/99	Drumheller			
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50154/004002 Attorney Docket No. STITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (MODIFIED) PATENT AND TRADEMARK OFFICE Serial No. 10/047,404 Applicant Hubbell et al. INFORMATION DISCLOSURE STATEMENT BY APPLICANT Filing Date October 19, 2001 (Use several sheets if necessary) Group 1632 (37 C.F.R. § 1.98(b)) IDS Filed December 8, 2003

m	5,932,462	8/3/99	Harris et al.	
0~	5,945,457	8/31/99	Plate, et al.	
m	5,965,588	10/12/99	Vasquez et al.	
N	2003-0044468	3/6/2003	Cellesi et al.	

Examiner's Initials	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation (Yes/No)
m	WO 95/13312	18.05,95	WIPO			
w	WO 97/22371	26.06.97	WIPO			
~	WO 99/22770	14.05.99	WIPO			
w	WO 99/34833	15.7.99	WIPO	·		
~	WO 99/14259	25.3.99	WIPO			
0-/	WO 00/09087	24.2.00	WIPO			

	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)
~~	Baker, "Controlled Release of Biologically Active Agents," Bruck, ed., p. 84-131 John Wiley and Sons, New York (1987).
~	Ballini et al., "Amberlyst A-27, and Efficient Heterogeneous Catalyst for the Michael Reaction of Nitroalkanes with β-Substituted Alkene Acceptors," J. Org. Chem. 61:3209-3211 (1996).
m	Boyland et al., "Enzymes Catalysing Conjugations of Glutathione with Alpha-beta-unsaturated Carbonyl Compounds," Biochem. J. 109:651-661 (1968).
W	Chasseaud, *Distribution of Enzymes that Catalyse Reactions of Glutathione with Alpha beta-unsaturated Compounds,*Biochem. J. 131:765-769 (1973).
a	Deutsch et al., "Synthesis of Congeners and Prodrugs. 3. Water-Soluble Prodrugs of Taxol with Potent Antitumo Activity," Journal of Medicinal Chemistry 32:788-792 (1989).
M	Dumitriu et al., "Polymeric Drug Carriers," in Polymeric Biomaterials, Dumitriu, ed., p. 435-449 and 466-724, Marcel Dekker, New York (1994).
N	Duncan et al., "Soluble Synthetic Polymers as Potential Drug Carriers," Adv. In Polym. Sci. 57:51-101 (1984).
EXAMINER	DATE CONSIDERED 6-04

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.

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B	SUBSTITUTE FORM PTO-1449 (MODIFIED)	U.S. DEPARTMENT OF COMMERCE	Attorney Docket No.	50154/004002
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١			Filing Oate	October 19, 2001
			Group	1632
	(37 C.F.R. § 1.98(b))		IDS Filed	December 8, 2003

m	Eisele et al., "Kinetics of Photocrosslinking Reactions of a DCPA/EA Matrix in the Presence of Thiols and Acrylates," J. Polym. Sci., Polym. Chem. Ed. 35:2333-2345 (1997).						
~~	Fan et al., "Molecular recognition and catalysis: incorporation of an 'oxyanion hole' into a synthetic receptor," New J. Chem. 21(1):81-85 (1997).						
M	Friedman et al., "Relative Nucleophilic Reactivities of Amino Groups and Mercaptide Ions in Addition Reactions withα,β-Unsaturated Compounds," J. Am. Chem. Soc. 87(16):3672-3682 (1965).						
w	Greenwald et al., "Drug Delivery Systems: Water Soluble Taxol-2'-Poly(ethylene glycol) Ester Prodrugs-Design and in Vivo Effectiveness," J. Med. Chem. 39:424-431 (1996).						
m	Ghandehari et al., "In Vitro Degradation of pH-sensitive Hydrogels Containing Aromatic Azo Bonds," Biomaterials 18:861-872 (1997).						
m	Hern et al., "Incorporation of adhesion peptides into non-adhesive hydrogels useful for tissue resurfacing," J. Biomed. Mater. Res. 39:266-276 (1998).						
~	Hirai et al., "pH-induced Structure Change of Poly (vinyl alcohol) Hydrogel Crosslinked with Poly (acrylic acid)," Angewandte Makromolekulare Chemie 240:213-219 (1996).						
m	Ishihara et al., 'Tris(pentafluorophenyl) boron as an Efficient, Air Stable, and Water Tolerant Lewis Acid Catalyst,* Bull. Chem. Soc. Jpn. 68:1721-1730 (1995).						
W	Kawal et al., "New Application of Solid Acid to Carbon-Carbon Bond Formation Reactions: Clay Montmorillonite- Catalyzed Aldol Reactions of Silyl Enol Ethers with Aldehydes and Acetals," Buil. Chem. Soc. Jpn. 61:1237-1245 (1988).						
N	Kito et al., "Blocompatible Coatings for Luminal and Outer Surfaces of Small-caliber Artificial Grafts," Journal of Biomedical Materials Research 30:321-330 (1996).						
~	Lau et al., "Conjugation of Doxorubicin to Monoclonal Anti-carcinoembryonic Antigen Antibody via Novel Thiol- directed Cross-linking Reagents," Bioorganic & Medicinal Chemistry 3:1299-1304 (1995).						
\sim	Lau et al., "Novel Doxorubicin-Monoclonal Anti-carcinoembryonic Antigen Antibody Immunoconjugate Activity in vitro," Biorganic & Medicinal Chemistry 3:1305-1312 (1995).						
٠ ٨	Mathur et al., "Methods for Synthesis of Hydrogel Networks: A Review," Journal of Macromolecular Science-Reviews in Macromolecular Chemistry and Physics C36(2):405-430 (1996).						
~	Moghaddam et al., "Molecular Design of 3-Dimensional Artificial Extracellular-matrix: Photosensitive Polymers Containing Cell Adhesive Peptide," Journal of Polymer Science: Part A: Polymer Chemistry 31:1589-1597 (1993).						
~	Morpurgo et al., "Preparation and Characterization of Poly(ethylene glycol) Vinyl Sulfone," Bioconjugate Chem. 7:363-368 (1996).						
~	Pato et al., "Polymers containing enzymatically degradable bonds, 9 ^{s)} Chymotrypsin catalyzed hydrolysis of a p- nitroanilide drug model, bound via digopeptides onto poly(vinylpyrrolidone-co-maleic anhydride)," Makromol. Chem. 185:231-237 (1984).						
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Pathak et al., "Rapid Photopolymerization of Immunoprotective Gels in Contact with Cells and Tissue," Journal of the American Chem. Society 114:8311-8312 (1992).						
EXAMINER	DATE CONSIDERED 6-04						
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•	(Use several sheets if necessary)		Group	1632
•	(37 C.F.R. § 1.98(b))	<u> </u>	IDS Filed	December 8, 2003

~~	Petka et al., "Reversible Hydrogels from Self-Assembling Artificial Proteins," Science 281:389-392 (1998).
'~	Pitt et al., "Controlled Drug Delivery," In Biodegradation of Polymers, Basic Concepts, Volume 1, p. 53-80, CRC Press, Boca Raton, Florida (1983).
~~	Romanowska et al., "Michael Additions for Syntheses of Neoglycoproteins," Methods in Enzymol. 242:90-101 (1994).
~	Sawhney et al., "Bioerodible Hydrogels Based on Photopolymerized Poly(ethylene glycol)-co-poly( α-hydroxy acid) Diacrylate Macromers," Macromolecules 26:581-587 (1993).
~	Tanaka et al., "Michael-type Addition of Illudin S, a Toxic Substance from Lampteromyces japonicus, with Cystelne and Cystelne-containing Peptides in Vitro, " Chem. Pharm. Bull. 44:273-279 (1996).
~	West et al., "Comparison of Covalently and Physically Cross-linked Polyethylene Glycol-based Hydrogels for the Prevention of Postoperative Adhesions in a Rat Model," Biomaterials 16:1153-1156 (1995).
~	Wright et al., The Chemistry and Pharmacology of Taxol and Its Derivatives, Farina, ed., p. 110-130 and 165-300, Elsevier, New York (1995).
4	Zalipsky et al., "Attachment of Drugs to Polyethylene Glycols," Eur. Polym. J. 19:1177-1183 (1983).
	Zhao et al., "Novel Degradable PEG Esters for Drug Delivery: Synthesis and Characterization," Polymer Reprints 38:526-527 (1997).

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Sheet 1 of 1 STITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE Attorney Docket No. 50154/004002 PATENT AND TRADEMARK OFFICE Serial No. 10/047,404 Applicant Jeffrey A. Hubbell et al. INFORMATION DISCLOSURE STATEMENT BY APPLICANT Filing Date October 19, 2001 (Use several sheets if necessary) Group 1632 (37 C.F.R. §1.98(b)) IDS Filed August 6, 2002 21559 Customer No. FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION Examiner's Document **Publication** Country or Class Subclass Translation Initials Number Date Patent Office (Yes/No) GB 1,348,045 A 03/13/74 WO 00/44808 8/3/00 PCT WO 01/92584 A1 12/6/01 **PCT** OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION) DATE CONSIDERED

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SUBSTITUTE FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE	Attorney Docket No.	50368/002002
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			U.S. PATENT DOCUMENTS	***		
Examiner's Initials	Document Number	Publication Date	Patentee or Applicant	Class	Subdass	. Filing Date (If Appropriate)
OA	5702717	12/30/1997	Han et al.			
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OA	WO 00/44808	08/03/2000	WIPO		,	
OA	WO 01/02017	01/11/2001	WIPO			
OA	WO 98/32466	07/30/1998	WIPO			٥
	OTHER DOC	UMENTS (INCL	UDING AUTHOR, TITLE, DATE, PL	ACE OF PUB	LICATION)	
OA	Greenwald et al " Activity" Bloorgan	Camptothecin-2 nic & Medicinal	20-PEG Ester Transport Forms: the l Chemistry 1998, 6:551-562.	Effect of Spac	er Groups on	Antitumor
OA	Kopecek et al. "C N.Y. Acad. Sci. 1	ontrolled Relea 985, 446:93-10	se of Drug Model from N-(2-Hydrox)	propyl)-metha	crylamide Co	polymers" Ann.
OA	Pendri et al. "Anti Prodrug" Anti-car	itumor Activity oncer Drug Desig	f Paclitaxel-2'-glycinate Conjugated in 1998, 13:387-395.	to Poly(ethyle	ne glycol): a V	Vater-soluble

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			U.S. PATENTS					1
Examiner's Initials	Patent Number	Issue Date	Patentee		Class	Subclass	Filing Date (If Appropriate)	
~	4,618,400	10/21/86	Wood					L
1	OTHER DOCU	MENTS (INCL	JDING AUTHOR, TITLE, D	ATE, PLACI	OF PUB	LICATION)		
W		V-substituted Pi	ornhyrins as Aloual Initiatem				erizations of	
~	Blume et al., "Spe the Ends of the Po Biophys. Acta., 11	cific Targeting Dymenc Chains 49:180-184 (19	with Poly(ethylene glycol)-m Combines Effective Targel 193).	odified Lipo Binding wit	somes: Co h Long Cir	Oupling of Ho culation Time	ming Devices to es, Biochim	:
W	Booth et al., *Effect Copolymers in Aqu	Booth et al., "Effects of Block Architecture and Composition on the Association Properties of Poly(oxyalkylene) Copolymers in Aqueous Solution," Macromol. Chem. Rapid Commun., 21:501-527 (2000).						
N	Discher et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymers," Science, 284:1143-1146 (1999).							
~	Gabizon, "Targetin Liposomes: In Vitn	Gabizon, "Targeting Folate Receptor with Folate Linked to Extremitles of Poly(ethylene glycol)-Grafted Liposomes: In Vitro Studies," Bioconjugate Chem., 10:289-298 (1999)						
~~	Inoue et al., "Gene	Therapy of Hu	man Bladder Cancer with A esearch, 6:4422-4431 (200		nediated A	ntisense Bas	lc Fibroblast	
2			s, Chapters 2, 4, and 9, CRO		a Raton. I	FL. (1995)		
~~		Conglymer in A	Guenus Solution: March - F-					
~	Torchilin et al., "Pol Longevity," Biochim	ly(ethylene glyc n. Biophys. Acta	ol) on the Liposome Surface, 1195:11-20 (1994).	e: on the Me	chanism o	of Polymer-co	pated Liposome	<u> </u>
~~	Watanabe et al., *F and Episulfide Initia 24:3970-3972 (199	irst Example of ited with Zinc N 1).	Photoinduced Copolymeriz -substituted Porphyrin unde	ability Enha r Visible Lig	ncement. ( ht Irradiati	Copolymeriza on," <i>Macrom</i>		
m	Won, "Giant Worm!	ke Rubber Mic	elles, * Science, 283 960-96	3, (1999).			<del>;</del>	:
~	Yu et al., "Bilayer M	omhologies of	Self-assembled Crew-cut A lecules, 31:3509-3518, (199	· · · · · ·	f Amphiphi	lic PS-b-PEC	D Diblock	
~	Zalipsky et al., "Pen	tide Atlachmen	t to Extremities of Liposoma entapeptide, YIGSR," Bioco	10.4	rafted PE(	Chains: Pre	paration of the	
			ylene Glycol-grafted Immun				. 39:153-161	
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